

REMARKS

Claims 1-24 are now pending in the application. Claims 1, 10, and 16 have been amended by this amendment and claims 19-24 have been added by this amendment. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

SPECIFICATION

Minor amendments have been made to the Specification to correct typographical errors.

REJECTION UNDER 35 U.S.C. § 102 AND § 103

Claims 1-2, 4-5, 7-12 and 14-18 stand rejected under 35 U.S.C. §102(b) as being clearly anticipated by Shahidi (U.S. Patent No. 6,529,758). Claims 6 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shahidi in view of Brown (U.S. Patent No. 4,621,257). Claims 3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shahidi in view of Lim (U.S. Patent No. 4,482,995). These rejections are respectfully traversed.

Independent Claim 1 recites “the data processor being operable to generate a three-dimensional representation of the surgical instrument as it would visually appear from at least two different perspectives and to overlay the representation of the surgical instrument onto the image data of the patient in the first orientation”. Independent Claim 10 recites “the data processor being operable to generate a three-dimensional representation of the surgical instrument as it would visually appear from either the

perspective of the image source or the perspective of the image receiver and to overlay the representation of the surgical instrument onto the image data of the patient in the orientation". Contrary to this Shahidi teaches a method of registering volumetric scan data during a procedure using a laser system. Sahidi teaches a system that uses the laser system to view the laser representation on the patient surface to align the volumetric data with the patient during the operative procedure. Although the volumetric data may be moved and aligned to the patient in the procedure, Shahidi does not disclose or teach providing a representation of a surgical instrument, such as an icon or graphical rendering, from at least two perspectives relative to the image data acquired of the patient in an orientation. Further, Sahidi does not teach that the representation of the surgical instrument can be changed, such as changing perspectives, on the image data that is in the same position or orientation. Rather, Shahidi teaches a method for referencing or registering volumetric scan data with a patient rather than a method or apparatus for displaying a representation of a surgical instrument relative to image data. If the Examiner disagrees with the Applicants' interpretation of the Shahidi, Applicants' representative request that the Examiner specifically identify those portions of Shahidi which teach rendering a surgical instrument relative to image data of a patient in a position and allowing the image rendered to be in at least two perspectives or a selected one of two perspectives on the image data of the patient in the position.

Independent Claim 16 recites "capturing image data representative of a patient ... rendering a three dimensional representation of the surgical instruments as it would appear from a first perspective; displaying the representation of the surgical instrument ... subsequently displaying the representation of the surgical instrument as it visually

appear from a second perspective”. As discussed above, Shahidi does not teach or fairly suggest representing a surgical instrument from a first perspective on a display and subsequently displaying the surgical instrument in a second perspective on the display. Therefore, Shahidi does not teach or render obvious the method as claimed in independent Claim 16. Similarly, new independent Claim 19 recites “rendering a three dimensional representation of the surgical instrument as it would visually appear from at least two perspectives relative to the portion of the patient in the orientation; and displaying the representation of the surgical instrument in one of the at least two perspectives superimposed on the image data of the patient in the orientation”. As Shahidi does not teach rendering a three dimensional representation of the surgical instrument in at least two perspectives, Shahidi does not teach or render obvious the method of new independent Claim 19.

Therefore, Applicants submit that each of the presently pending claims, including independent Claims 1, 10, 16, and 19, and each of the claims depending directly or indirectly therefrom, are in condition for allowance.

Brown is directed to video display touch detection digitizer and neither teaches nor fairly suggests any of the elements of the presently pending independent claims including rendering a representation of a surgical instrument or displaying a representation of a surgical instrument.

Lim et al. teaches a method of correcting for deviations in the actual position of a detector of a rotating gamma camera from the expected position and providing a method for correcting for the same. Lim et al. does not teach any of the elements of the presently pending independent claims, including at least rendering a three dimensional

image of a surgical instrument or displaying a three dimensional image of a surgical instrument.

Therefore, Applicants submit that each of the cited references, either alone or in combination, do not teach each of the elements of the presently pending independent claims. Further, Shahidi does not render obvious each of the elements of the presently pending independent claims and neither does Lim et al. or Brown, either alone or in combination with Shahidi, teach each of the elements of the presently pending independent claims. Therefore, Applicants submit that each of the presently pending claims are in condition for allowance. Applicants request that the Examiner withdraw each of the projections and allow each of the presently pending claims.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: Sept. 27, 2004

By: Richard W. Warner
Richard W. Warner
Reg. No. 38, 043

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

RWW/MLT/lkj